

The Claims

What is claimed is:

- 5 1. A device for reaming a medullary canal of a bone comprising:
a rotatable drive shaft having proximal and distal ends, the proximal end configured
and adapted to connect to a drive element to rotate the drive shaft; and
a reamer head coupled to the distal end of the drive shaft, to rotate the reamer head,
said reamer head comprising:
 - 10 a tubular shank having a longitudinal axis and a plurality of resilient
arms for engaging the distal end of the drive shaft; and
a cutting head coupled with the shank and having a plurality of blades
and flutes therebetween for cutting and reaming of bone.
- 15 2. The device of claim 1, wherein the drive shaft and reamer head each has a
cannulation, with the drive shaft cannulation aligning with the reamer head cannulation
when the tubular shank and resilient arms are engaged with the drive shaft to form a center
channel through the device.
- 20 3. The device of claim 2, further comprising:
an aspiration tube for removing cut material generated by the reamer head, the
aspiration tube having a manifold assembly at a proximal end and a lumen configured and
dimensioned to receive the drive shaft; and
a reamer head retainer having proximal and distal ends and configured and
dimensioned at a proximal end to connect to a distal end of the aspiration tube and
configured and dimensioned at a distal end to receive the reamer head.
- 25 4. The device of claim 3, wherein the manifold assembly has at least one port,
the at least one port configured and adapted to communicate with an irrigation source, the at
30 least one port is in fluid communication with the center channel.
- 35 5. The device of claim 3, wherein:
the manifold assembly includes an irrigation port connectable to an irrigation source
and an irrigation chamber in fluid connection with the irrigation port; and

the drive shaft has an opening extending from an outer surface of the drive shaft to the drive shaft cannulation and located within the irrigation chamber.

6. The device of claim 3, wherein the manifold assembly includes an aspiration
5 port connectable to a suction source.

7. The device of claim 3, wherein the reamer head retainer has a plurality of ports in fluid communication with the lumen of the aspiration tube.

10 8. The device of claim 3 wherein the reamer head retainer couples with the reamer head permitting the reamer head to rotate with respect to the retainer.

9. The device of claim 8, wherein the reamer head retainer has an internal shoulder for engaging the resilient arms of the reamer head.

15 10. The device of claim 3, further comprising:
a reamer retaining ring coupled to the proximal end of the reamer head retainer and configured and dimensioned to fixedly attach the distal end of the aspiration tube to the proximal end of the reamer head retainer.

20 11. The device of claim 3, wherein the reamer head retainer has at least one protrusion located near the proximal end of the reamer head retainer for fixedly attaching the distal end of the aspiration tube to the proximal end of the reamer head retainer.

25 12. A reamer head for reaming a medullary canal of a bone comprising:
a tubular shank having a longitudinal axis and a plurality of resilient arms; and
a cutting head integral with the shank and having a plurality of blades and flutes therebetween for cutting and reaming of bone.

30 13. A reamer head retainer for rotatably engaging a reamer head of, comprising:
a tubular body having a distal end and a proximal end;
a plurality of ports spaced along the circumference of the tubular body; and
an internal shoulder located on the internal surface of the tubular body for rotatably and resiliently engaging resilient arms of a reamer head.

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14. A kit for the removal of a reamer head from a reaming device comprising:
a reamer head, comprising:
a tubular shank having a longitudinal axis and a plurality of resilient arms;
and

5 a cutting head integral with the shank and having a plurality of blades and
flutes therebetween for cutting and reaming of bone;
a reamer head retainer, comprising:
a tubular body having a distal end and a proximal end, a plurality of ports
spaced along the circumference of the tubular body;

10 an internal shoulder located on the internal surface of the tubular body for
rotatably and resiliently engaging resilient arms of a reamer head;
and

15 a reamer head removal device, comprising:
a base portion; and
an engagement portion configured and dimensioned to engage the resilient
arms of the reamer head thereby allowing the reamer head to disengage from the
reamer head retainer.

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